



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,070	10/21/2003	Ki-Man Kim	116511-00118	2827
27557	7590	08/03/2006	EXAMINER	
BLANK ROME LLP 600 NEW HAMPSHIRE AVENUE, N.W. WASHINGTON, DC 20037			SNIDER, THERESA T	
			ART UNIT	PAPER NUMBER

1744

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,070

Applicant(s)

KIM, KI-MAN

Examiner

Theresa T. Snider

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/13, 6/10/04, 3/29/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “125” has been used to designate both connecting member(page 7, line 23) and suction passage(page 8, line 5). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 200(page 8, line 14). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because of the inclusion of legal phraseology; line 8, 'means'.. Correction is required. See MPEP § 608.01(b).
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

5. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 recites a function of use rather than a further structural limitation.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 1, line 14. 'the brush cover' lacks proper antecedent basis.

Claim 9, line 2, 'the plurality of rib members' lacks proper antecedent basis. Should claim 8 be dependent from claim 7 rather than claim 6?

Claim 10, line 1, 'the brush cover locking means' lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 5 are rejected under 35 U.S.C. 102(a,e) as being clearly anticipated by Dyson et al..

Dyson et al. discloses a controlling portion, which is programmed to control movement of the robot cleaner body (col. 8, lines 25-35).

Dyson et al. discloses a driving portion (col. 8, lines 22-25).

Dyson et al. discloses a dust suction portion (col. 7, lines 15-25).

Dyson et al. discloses a hinge receiving portion protruding to oppose a floor surface (col. 7, line 64-col. 8, line 12).

Dyson et al. discloses a brush frame having a hinge protrusion pivotally connected to the hinge receiving portion and a suction port (fig. 5, #100,120, fig. 3, #24

Dyson et al. discloses a rotatable brush (fig. 6a, #26).

Art Unit: 1744

With respect to claim 2, Dyson et al. discloses the receiving portion provided on the cleaner body (col. 7, line 64-col. 8, line 12).

With respect to claim 5, Dyson et al. discloses the ability of the frame to be pivoted between two positions (col. 3, lines 39-49).

With respect to claim 6, Dyson et al. discloses the brush frame having a brush seating groove and a suction passage (fig. 5, curved housing area between #102a,b, #30).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

****It is not clear whether a brush cover is to be positively recited in claim 1 or not (see above 112 rejection). In the event that claim 1 will be amended to positively recite a brush cover, the following rejection would be applicable.****

12. Claims 1-2, 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson et al. in view of MacFarland.

Dyson et al. discloses a similar robot cleaner however fails to disclose a brush cover.

Dyson et al. discloses a controlling portion, which is programmed to control movement of the robot cleaner body (col. 8, lines 25-35).

Dyson et al. discloses a driving portion (col. 8, lines 22-25).

Dyson et al. discloses a dust suction portion (col. 7, lines 15-25).

Dyson et al. discloses a hinge receiving portion protruding to oppose a floor surface (col. 7, line 64-col. 8, line 12).

Dyson et al. discloses a brush frame having a hinge protrusion pivotally connected to the hinge receiving portion and a suction port (fig. 5, #100,120, fig. 3, #24

Dyson et al. discloses a rotatable brush (fig. 6a, #26).

MacFarland discloses a cleaner having a rotatable brush with a brush cover (fig. 2, #6). It would have been obvious to one of ordinary skill in the art to provide the brush cover of MacFarland in Dyson et al. to provide for a means to prevent carpeting from being drawn into the brush frame.

With respect to claim 2, Dyson et al. discloses the receiving portion provided on the cleaner body (col. 7, line 64-col. 8, line 12).

With respect to claim 5, Dyson et al. discloses the ability of the frame to be pivoted between two positions (col. 3, lines 39-49).

With respect to claim 6, Dyson et al. discloses the brush frame having a brush seating groove and a suction passage (fig. 5, curved housing area between #102a,b, #30).

With respect to claim 7, MacFarland discloses the brush cover having a suction hole with a plurality of ribs (fig. 2, #18).

Art Unit: 1744

13. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson et al. in view of McFarland as applied to claim 6 above, and further in view of Hertzberg.

Dyson et al. in view of MacFarland discloses a similar cleaner however fails to disclose the brush having a spiral blade.

Dyson et al. discloses the brush including spiral bristles (fig. 2, #24). MacFarland discloses the brush including spiral bristles (fig. 2, #13). Hertzberg discloses a cleaner having a brush with at least one spiral blade (fig. 1, #8). It would have been obvious to one of ordinary skill in the art to provide the blade of Hertzberg in Dyson et al. in view of MacFarland to allow for the most effective cleaning of the desired surfaces.

With respect to claim 9, MacFarland discloses the bristles having cuts in the location of the ribs (figs. 2-3, #12). Hertzberg discloses the blade having cuts in the location of ribs (fig. 1, #15).

14. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson et al. in view of MacFarland as applied to claim 1 above, and further in view of Massaro.

Dyson et al. in view of MacFarland discloses a similar cleaner however fails to disclose a rotatable locking member.

Massaro discloses a cleaner having a rotatable brush and brush cover wherein the cover is attached to the body by way of a rotatable locking member (figs. 2 and 4, #26,25, col. 2, line 64-col. 3, line 6). It would have been obvious to one of ordinary skill in the art to provide the locking means of Massaro in Dyson et al. in view of MacFarland to provide for a known means of allow for easy detachment of the brush cover from the body.

Art Unit: 1744

With respect to claim 11, it would have been obvious to one of ordinary skill in the art to determine the most appropriate indication means for the locking device in Dyson et al in view of MacFarland and Massaro to allow an operator to ensure that the cover is firmly in place.

Allowable Subject Matter

15. Claims 3-4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

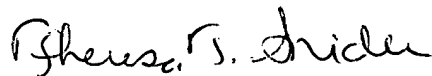
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Willis and Taylor disclose brush frames with rotatable brushes mounted therein.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Friday (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in cursive script that reads "Theresa T. Snider".

Theresa T. Snider
Primary Examiner
Art Unit 1744

8/1/2006